MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

DCS5018 – COMPUTER SYSTEMS & APPLICATIONS

(For Diploma students only)

16 OCTOBER 2017
2:30 p.m. – 4:30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **8 pages.**
2. Answer **ALL** questions in **Section A** on the **OMR sheet.**
3. Answer **ALL** questions in **Section B** in the **Answer Booklet.**

Section A: 40 Multiple Choice Questions (40 marks)
*Instruction: Shade your answers on the **OMR sheet**.*

1. _____ controls all functions of the computer's components.
   A. Hard disk
   B. External hard drive
   C. Solid-state disk
   D. Central Processing Unit

2. Which of the following is the input device?
   A. Keyboard
   B. Monitor
   C. Printer
   D. Speaker

3. A unique combination of 8 bits of 0s and 1s is referred as _____.
   A. bit
   B. byte
   C. megabyte
   D. gigabyte

4. When you are working on a document on computer, where is the document temporarily stored?
   A. RAM
   B. ROM
   C. CPU
   D. CD-ROM

5. Which of the four major functions of a computer is responsible for manipulating, calculating and organizing data into information?
   A. processing
   B. storage
   C. input
   D. output

6. The Internet is referred as _____.
   A. military system
   B. a software
   C. an internal communication system for businesses
   D. a large network of networks

7. Software that enables you to display and interact with text and other media on the web is a _____.
   A. web browser
   B. client
   C. server
   D. agent

Continued...

8. A computer connected to the Internet that asks for data is a _____.
   A. server
   B. client
   C. peripheral
   D. TCP/IP

9. The unique identification number assigned to your computer when you connect to the Internet is referred as _____.
   A. IP address
   B. email
   C. hosting
   D. path

10. _____ is a professional, business-oriented social networking site.
   A. LinkedIn
   B. Twitter
   C. Pinterest
   D. Flickr

11. _____ applications are software in which the vendor hosts the software online over the Internet and you do not need to install the software on your computer.
   A. Open Source as a Service
   B. Proprietary as a Service
   C. Software as a Service
   D. Webware as a Service

12. Web-based application software is a software that _____.
   A. is always free
   B. does not need an Internet connection
   C. is installed by the computer manufacturer
   D. is stored completely on a web server instead of your hard drive

13. All of the following are types of multimedia and entertainment software **EXCEPT** _____.
   A. digital audio software
   B. gaming software
   C. drawing software
   D. productivity software

14. A(n) _____ software installation installs all the most commonly used files to your computer's hard drive.
   A. full
   B. upgrade
   C. custom
   D. new

Continued...

15. Microsoft Excel is a(n) _____ software program.
    A. spreadsheet
    B. database
    C. graphic
    D. output

16. The main reason to encrypt a file is to _____.
    A. include it in the start-up sequence
    B. secure it for transmission
    C. prepare it for backup
    D. reduce its size

17. The term "page traffic" **BEST** describes _____.
    A. number of papers required to be brought in at a given page request
    B. number of pages of executing programs loaded in memory
    C. number of pages in memory at a given instant
    D. the movement of pages in and out of memory

18. What can be done if a computer runs out of RAM?
    A. Borrowing hard drive space.
    B. Operating system (OS) swaps out from RAM the data or instructions that haven't recently been used and moves them to hard drive.
    C. Increase RAM.
    D. All of the above.

19. A computer system that permits multiple users to run programs at same time is known as _____.
    A. multi programming system
    B. time sharing system
    C. multi-tasking system
    D. real time system

20. Which of the following is **TRUE** about the functions of application software?
    A. Manages the computer's hardware, including processor, memory and storage device.
    B. Provides a consistent means for application software to work with the central processing unit (CPU).
    C. Responsible for management, scheduling and coordination of tasks.
    D. Software that we use to do everyday tasks at home and at work.

21. Below are the criteria for evaluating the CPU performance **EXCEPT** _____.
    A. CPU benchmarks
    B. cache memory
    C. clock speed
    D. mechanical hard drive

Continued...

22. Which of the following steps are correct for machine cycle?
    A. Fetch – decode – execute - store
    B. Decode – process – execute - store
    C. Fetch – store – process - decode
    D. Execute – decode – process - store

23. Below are the characteristics of solid-state drive (SSD) **EXCEPT** _____.
    A. uses electronic memory
    B. having no mechanical motors
    C. generate a lot of heat
    D. require very little power

24. _____ is permanent storage and _____ is temporary storage.
    A. RAM, ROM
    B. ROM, RAM
    C. ROM, solid-state drive
    D. Optical drive, solid-state drive

25. What can be done to ensure your system stays reliable?
    A. Clears out unnecessary files.
    B. Reformats computer.
    C. Performs system restore.
    D. Visit Microsoft Knowledge Base

26. Network architecture are classified according to _____.
    A. the distance between nodes
    B. the set of rules used to exchange data between network nodes
    C. the communications medium used to transport the data
    D. all of the above

27. A _____ is a network in which the nodes area is located within a small geographic area. Example includes a network in a computer lab or at a fast-food restaurant.
    A. local area network (LAN)
    B. wide area network (WAN)
    C. personal area network (PAN)
    D. metropolitan area network (MAN

28. _____ acts like a traffic signal on a network, receive data packets and send them to their intended nodes on the same network (not between different networks).
    A. Router
    B. Bridge
    C. Modem
    D. Switch

29. Which of the following is **NOT** the types of UTP cable?
    A. Cat 5
    B. Cat 5E
    C. Cat 6
    D. Cat 6a

Continued...

30. Which of the following is **NOT TRUE** about Digital Subscriber Line (DSL)?
    A. Speed drops as distance from the main signal source increases.
    B. Average speed of 3.7 Mbps with maximum of 15 Mbps.
    C. Fiber-optic used as transmission medium.
    D. All of the above.

31. Which of the following statement is **NOT TRUE** about computer viruses?
    A. Does not require human interaction to spread.
    B. Replicates itself and copies its code into as many host files as possible.
    C. Virus replication can slow down networks.
    D. Viruses have a greater chance of being copied to another computer system to spread its infection.

32. A _____ is a virus that is triggered when certain logical conditions are met, such as opening a file or starting a program a certain number of times.
    A. time bomb
    B. logic bomb
    C. boot-sector
    D. macro

33. A kind of virus changes its own code or periodically rewrites itself to avoid detection and it mostly infects a particular type of file such as .EXE files. This kind of virus is known as _____.
    A. polymorphic virus
    B. stealth virus
    C. encryption virus
    D. multipartite virus

34. When antivirus software detects a virus, it places the virus in a secure area on your hard drive so that it won't spread to other files. This procedure is called _____.
    A. inoculation
    B. detection
    C. prevention
    D. quarantining

35. What is the type of attacks that a hacker is repeatedly making requests of that computer system through a computer which has taken over as a zombie?
    A. Trojan horse
    B. Denial-of service (DoS) attack
    C. Sniffer
    D. Backdoor programs

36. How do firewalls protect a computer from hackers?
    A. Blocking access to logical ports.
    B. Keeping computer's network address secure.
    C. Use network address translation (NAT) to assign internal IP addresses on a network.
    D. All of the above.

Continued...

37. _____ is an unwanted piggyback program that usually downloads with other software you install from the Internet and that runs in the background of your system.
    A. Adware
    B. Spam
    C. Spyware
    D. Freeware

38. Which of the following is **NOT TRUE** about cookies?
    A. Cookies are small text files that some websites automatically store on your hard drive when you visit them.
    B. Companies use the cookie information to determine the traffic flowing through their website and the effectiveness of their marketing strategy.
    C. Cookies do not go through your hard drive in search of personal information such as passwords or financial data.
    D. None of the above.

39. Which of the following is **TRUE** about image backup (or system backup)?
    A. All system, application and data files are backed up, not just files that changed.
    B. Ensures you capture changes to application files, such as automatic software updates.
    C. Snapshot of your entire computer, including system software.
    D. All of the above.

40. A user clicks on a link where the site looks like a legitimate site but is actually a fraudulent copy that the scammer has created. This is known as _____.
    A. Phishing
    B. Pharming
    C. Scareware
    D. Spam

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Section B: 4 Structured Questions (60 marks)

*Instruction: Write your answers in the **Answer Booklet**.*

Question 1

a) What is Instant Messaging (IM)? State **TWO** examples of Instant Messaging.
(2 marks)

b) Joey wants to login to her Gmail account for checking email. Explain how the Internet works.
(6 marks)

c) Nowadays users are advised to be cautious when posting their content on Facebook. List out **THREE** safeguards when using these social networking site.
(3 marks)

d) Briefly explain on how search engines work.
(4 marks)

[TOTAL 15 MARKS]

Question 2

a) Wireless networks generally have decreased throughput compared with that of wired networks. Discuss **THREE** common reasons why wireless signals might have decreased throughput.
(3 marks)

b) Rani wants to install modem and configure her home network. Before she can start to configure her computer to the network, what should Rani do?
(5 marks)

c) Briefly describe **TWO** disadvantages of dial-up.
(2 marks)

d) List **FIVE** precautions that you must use to secure a wireless network.
(5 marks)

[TOTAL 15 MARKS]

Question 3

a) Provide **FIVE** virus symptoms that show your computer is infected with a virus.
(5 marks)

b) Hacker is most commonly defined as anyone who unlawfully breaks into a computer system. Briefly explain **THREE** types of hackers regardless of legal or illegal purposes.
(6 marks)

Continued...

c) Identify **TWO** good points and **TWO** bad points for the password below.

Lyndon1986Car

(4 marks)

[TOTAL 15 MARKS]

Question 4

a) Discuss **THREE** advantages and **THREE** disadvantages of Voice over Internet Protocol (VoIP).

(6 marks)

b) What is Database Management System (DBMS)? Give **ONE** example and list out **FOUR** main operations of DBMS.

(7 marks)

c) Provide **FOUR** common validation rules that need to be checked on the data.

(2 marks)

[TOTAL 15 MARKS]

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